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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
ENVIRONMENTAL
CLEANUP

Ms. Amy Essig Desai
Farallon Consulting
975 5th Avenue Northwest
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OCT - 7 2014

Dear Ms. Essig Desai:

The EPA has completed its review of the Technical Memorandum entitled: *Addendum to the Operations, Monitoring, and Maintenance Plan, Basis of Design Report, Jorgensen Forge Early Action Area* (Addendum); dated September 10, 2014. The purpose of the Addendum is to demonstrate that upland source controls at the Jorgensen Forge Facility are effectively minimizing the potential for sediment recontamination from stormwater and groundwater sources. The EPA is requiring the following revisions to the Addendum:

QAPP Requirements:

- The Addendum must include a QAPP for both groundwater and stormwater monitoring. The QAPP must be submitted to the EPA for review and approval. The QAPP must sufficiently address the applicable QA elements identified in the EPA/QA-R5 document *EPA Requirements for QA Project Plans*; dated March 2002. Sample collection cannot proceed without an EPA approved QAPP.

- On Page 5, General Reporting, add the data validation report and the spreadsheet of the validated data to the monitoring report for groundwater and stormwater monitoring.

- The QAPP must include the name of the laboratory that will be used by EMJ. EPA's Forum on Environmental Measurement (FEM) requires the laboratory and field workers to demonstrate competency. This must include the training and qualifications of the personnel that will handle this project. This must also include the current accreditation/certification and QA Manual of the laboratory.

- As described in greater detail under the Stormwater Comments, EMJ must revise the Addendum to ensure the following: (1) a basis is provided for the proposed screening levels/"Toxic Substance Criteria" as it relates with the data quality objective of demonstrating that upland source control is minimizing the potential for sediment recontamination from stormwater; and (2) choose analytical methods with practical detection limits that can detect at the proposed screening levels/"Toxic Substance Criteria." For example- listing Washington State's Aquatic Life Criteria for marine waters is not a sufficient basis for defining screening levels/"Toxic Substance Criteria".

Groundwater Comments:

- A comparison of the groundwater well screened depths to the sediment dredge prisms finds that the wells will not capture groundwater data within the horizon of the dredged sediments (now clean backfill). Only one well, MW-52 is screened in the same horizon of the dredged sediment.

EMJ's revised groundwater monitoring plan portion of the Addendum must demonstrate that the proposed wells are screened at appropriate depths to capture groundwater data within the horizon of the removal action boundary- including the dredged sediments.

- The Addendum proposes using monitoring well PL2-JF04A to capture groundwater data for the northwest corner of the removal action boundary. After reviewing the location of this well in relation to the 2-66 Sheetpile Wall and the Jorgensen Forge Outfall Site, EPA finds that this well is located too far from the bank for the data to demonstrate whether the groundwater along the shoreline does contains concentrations of the Contaminants of Concern (COCs) at levels that could result in recontamination of the shoreline bank and in-water sediments. EMJ must propose an alternate well closer to the bank that is screened at a sufficient depth to capture groundwater within the horizon of the removal action boundary- including the dredged sediments.

- The Addendum specifies that groundwater samples will be collected during a rising tide. No justification or explanation is provided for collecting the samples at this point in the tidal cycle. EMJ must provide a technical justification why collecting groundwater samples on a rising tide is appropriate in assessing the groundwater migrating from the uplands to the shoreline bank and in-water sediments. EMJ's technical justification must also explain timing and sequencing of sampling in terms of the time of year it will occur, and how the samples will be pulled at each well to ensure that the groundwater sampled will reflect the upland groundwater, not water from the LDW.

Stormwater Monitoring Comments:

- The objective of monitoring the stormwater is to demonstrate that upland source control is minimizing the potential for sediment recontamination from stormwater. No justification is provided as to how the marine chronic aquatic life criteria relate to the data quality objective. In its revised Addendum, EMJ must provide a technical basis for each of the "toxic substances criteria" proposed, and why it is appropriate considering the data quality objectives.

- EMJ proposes to utilize Method 8082 for analyzing PCBs in the stormwater samples. Attachment C of the Addendum states because the practical detection limit for Method 8082 is above the Toxic Substance Criterion (in this case, the marine aquatic life criterion for PCBs), the screening level will be the practical detection limit. EMJ must revise the analytical methodology used to achieve more sensitive detection limits for PCBs. Method 8082 is only appropriate if the selected lab utilizes the options within the methodology that allow for more sensitive detection limits. Utilizing options provided within Method 8082 to achieve a more sensitive detection limit is consistent with PCB monitoring of stormwater at surround Early Action Areas (EAAs) on the LDW. For example, at the Slip 4 EAA, the selected laboratory, ARI, utilizes a larger sample volume and a different solvent to attain more sensitive minimum detection limits. At T-117, the City of Seattle is, similarly, proposing to utilize the options identified in the Method 8082 documents to achieve a detection limit that is more sensitive. EMJ is required to do the same.

- Similarly, the Method 7471 A for mercury monitoring does not have a limit of quantitation sensitive enough to detect the SQS Projective Groundwater Screening Level of 0.0052 µg/L. Methods 1631 E or 1630 will result in a much lower reporting limit than the currently proposed methodology. EMJ must revise the analytical methodology used to detect mercury at the screening level.

As required under Paragraph 18 the Administrative Settlement Agreement and Order on Consent, EMJ is required to submit a revised Addendum within 30 days. Please contact me with any questions.

Sincerely,

Rebecca Chu

Rebecca Chu
Remedial Project Manager

cc: Romy Freier-Coppinger, Washington State Department of Ecology
Glen St. Amant, Muckleshoot Indian Tribe
Alison O'Sullivan, Suquamish Indian Tribe
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